APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,012	09/28/2000	Keiichi Teramoto	197932US2RD	8032

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EXAMINER
EUGENE, WANDA

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.		**Applicant(s)**
Office Action Summary	09/671,012		TERAMOTO ET AL.
	Examiner		**Art Unit**
	Wanda Eugene		2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 September 2000</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2 and 4-20</u> is/are rejected.

7)☒ Claim(s) <u>3</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some * c)☐ None of:

       1.☒ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2,4,5</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Specification

1.   The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3.   Claims 6, 13-15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "AV/C Protocol" is rendered as indefinite.

Claims 13 and 20 recites the limitation "said terminal device" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1, 2, 4-8, 10-14, 16-17 and 19- 20 are rejected under 35 U.S.C. 102(e) as being

anticipated by Sen et al. (6,208,620)

In regards to claims 1 and 16, Sen et al. discloses A terminal device (**WAG 203** fig 2) for control

of data between communicating entities (**mobile station 201** fig 2) over a network via a wireless

link, comprising: an interface section (**CDMA 227** fig 2) for performing sending and receiving of

packets with a remote communicating entity; a link setting section (**link layer 226** fig 2) for

setting a link for control and for data transfer with the remote communicating entity; a wireless

link information acquisition section (**link monitoring agent 211** fig 2) for acquiring wireless link

information indicating the condition of a wireless link between said terminal device and a

remote communicating entity in the network at the time of setting the link (**Link Monitoring**

Agent keeps track of the sequence number of the first RLP frame corresponding to each

TCP packet thus keep track of which TCP packet is affected by a failed transmission col.

6 lines 63-64), and for updating the wireless link information acquired at the time of setting the

link by the current dynamically acquired wireless link information (**Link Monitoring Agent**

computes the sequence number of the TCP packet containing this lost frame and

instructs a retransmission of the entire packet and signals a buffer management entity

residing within the RLP layer to discard the remaining frames of the corrupted TCP

packet col. 7 lines 1-8); a wireless link information storage section for storing the acquired or

updated wireless link information (**in the cached packet information is obtained and**

manipulated col. 6 lines 38-39); and an application section (**TAS 209** fig 2) for, based on the

wireless link information stored in the wireless link information storage section (**caching is**

implemented by TAS col. 3 lines 54-55), determining whether or not data can be transferred

and, if data transfer is possible, optimizing a transfer parameter for transfer of data with the

remote communicating entity, in accordance with the wireless link information, this transfer

parameter being used to receive data from or send data to the remote communicating entity, via the interface section (**the Link Monitoring Agent keeps track of the sequence number of the first RLP frame corresponding to each TCP packet with sequence numbers of the frame which delivery transmission failed; when such a frame loss is signaled the Link Monitoring Agent instructs TAS to re-transmit the entire TCP packet** col. 6 lines 60-64 and col. 7 lines 2-3).

In regards to claims 2 and 17, Sen et al. discloses wireless link information stored in the wireless link information storage section includes wireless link information with regard to said terminal device and wireless link information with regard to a remote communicating entity (**the system includes means for caching both TCP packets during forward transmission and acknowledgement return packets** col. 3 lines 41-44).

In regards to claim 4, Sen et al discloses a wireless link information updating section for changing wireless link information stored in the wireless link information storage section to a format interpretable by the application section and for passing the wireless link information to the application section (**Packet information is obtained and modified, its memory cached and sent to TAS** col. 6 line 29-37).

In regards of claim 5, Sen et al. discloses the wireless link information storage section stores wireless link information as information related to a constituent element of said terminal device (**packet information cached is obtained and manipulated if necessary** col. 6 lines 38-39).

In regards of claim 6, Sen et al discloses a SubUnit defined in the AV/C Protocol is used as the constituent element (**TCP-Aware Agent Sub-layer protocol as a method and system for implementing robust TCP performance** col. 3 line 34-35).

In regards to claim 7, Sen et al. further discloses a wireless link monitoring section (**Link Monitoring Agent** 211 fig. 2) for monitoring the condition of a wireless link in the network, for outputting wireless link information acquired by the monitoring to the wireless link information acquisition section (**the Link Monitoring Agent closely monitors the activity between the transmitter and receiver in regards to the radio link protocol and utilizes the information to determine a notification message** col. 5 line 17-20).

In regards to claims 8 and 14 Sen et al. discloses a local wireless link information sending section for sending wireless link information of said terminal device to the remote communicating entity, in response to a request from the remote communicating entity (**the requested RLP frames are retransmitted by the source** col. 4 lines 66-67).

In regards to claim 10, Sen et al. discloses he wireless link information includes at least one of a packet discard rate, a usable bandwidth, a number of usable channels, a usable transfer rate, or observable information on which these are based (**events which occur on the forward and reverse link endure continuous observation of user information** col. 8 lines 64-65).

In regards to claim 11, Sen et al. teaches the transfer parameter is at least one of an AV/C command or content data to be transferred (**data transfer occurs in respect of the snoop protocol** col. 5 lines 25-33).

In regards of claim 12 and 19, Sen et al. teaches a terminal device (**WAG 203** fig 2) for transfer

of data between communicating entities (**mobile station 201** fig 2) over a network via a wireless

link, comprising: an interface section (**CDMA 227** fig 2) for performing sending and receiving of

packets with a remote communicating entity; a link setting section (**link layer 226** fig 2) for

setting a link for control and for data transfer with a remote communicating entity; a wireless link

information acquisition section (**link monitoring agent 211** fig 2) for acquiring wireless link

information indicating a condition of a wireless link between said terminal device and a remote

communicating entity in the network at the time of setting the link, and for updating the wireless

link information acquired at the time of setting the link by the current dynamically acquired

wireless link information (**Link Monitoring Agent keeps track of the sequence number of the**

first RLP frame corresponding to each TCP packet thus keep track of which TCP packet

is affected by a failed transmission col. 6 lines 63-64); a wireless link information storage

section for storing the acquired or updated wireless link information (**in the cached packet**

information is obtained and manipulated col. 6 lines 38-39); and a local wireless link

information notification section (**TAS 209** fig 2) for receiving from the remote communicating

entity a request for local wireless link information of said terminal device and for sending the

local wireless link information to the remote communicating entity (**packets to TAS where**

packet data is cached, packet information is forwarded to the destination port FH upon

request col. 6 lines 37-40).

In regards of claims 13 and 20 Sen et al. discloses a gateway device (**WAG 203** fig 2) for

controlling transfer of data between a first terminal device on a wired network (**FH 207** fig 2) and

a second terminal device on a wireless network (**mobile station 201** fig 2), the gate device

comprising: a first interface section (**CDMA 227** fig 2) for sending and receiving packets via the

wireless network; a second interface section (**CDMA 229** fig 2) for sending and receiving

packets via the wired network; a first link setting section (**link layer 226** fig 2) for setting a link

for control and for data transfer with the second terminal device; a second link setting section

(**link layer** fig 2) for setting a link with the first terminal device; a wireless link information

acquisition section (**link monitoring agent 211** fig 2) for acquiring wireless link information

indicating a condition of a wireless link between said terminal device and the second terminal

device on the wireless network at the time of setting the link (**Link Monitoring Agent keeps**

track of the sequence number of the first RLP frame corresponding to each TCP packet

thus keep track of which TCP packet is affected by a failed transmission col. 6 lines 63-

64), and for updating the wireless link information acquired at the time of setting the link by the

current dynamically acquired wireless link information (**Link Monitoring Agent computes the**

sequence number of the TCP packet containing this lost frame and instructs a

retransmission of the entire packet and signals a buffer management entity residing

within the RLP layer to discard the remaining frames of the corrupted TCP packet col. 7

lines 1-8); a wireless link information storage section for storing the acquired or updated

wireless link information (**in the cached packet information is obtained and manipulated**

col. 6 lines 38-39); and a network connection processor for, based on wireless link information

stored in the wireless link information storage section, performing receiving or sending of data

between the first terminal device and the second terminal device via the first interface section

and second interface section (**the Link Monitoring Agent keeps track of the sequence**

number of the first RLP frame corresponding to each TCP packet with sequence

numbers of the frame which delivery transmission failed; when such a frame loss is

signaled the Link Monitoring Agent instructs TAS to re-transmit the entire TCP packet

col. 6 lines 60-64 and col. 7 lines 2-3).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sen et al.

in view of Aravamudan et al. (U.S. 6,301,609)

Sen et al. teaches all the claim limitations of claim one. Sen et al. fails to explicitly

disclose providing to a user a list of data candidates for transfer, and waiting for input

from the user of data selected from the list. Aravamudan et al. discloses user created

attributes, to an associates list which is created in respect to users input in which user

can select and can be connected to the list members upon request (col. 9 lines 45-67). It

would have been obvious to one of ordinary skill in the art a the time the invention was

made to modify Sen et al. to include a means of user selection to obtain an user input as

to the desired user path in order to create a unified service platform by utilizing all the

unique features and capabilities existing amongst the provided mediums.

Allowable Subject Matter

8.   Claims 15 and 18 would be allowable if rewritten to overcome the rejection(s) under 35

U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations

of the base claim and any intervening claims.

9.   Claim 3 is objected to as being dependent upon a rejected base claim, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims.

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Takagi et al. (6,272,148) Scheme for reliable communication via radio and wired networks

using transport layer connections

        Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Wanda Eugene whose telephone number is 703-305-8978. The examiner

can normally be reached on M-F 7am-4pm.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Q Ngo can be reached on 703-305-4798. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

we

RICKY NGO
PRIMARY EXAMINER